



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,771	01/16/2001	Brian Keith Schmidt	0007056-0057/P5317/BBC	7449
32291	7590	11/18/2004	EXAMINER	
MARTINE & PENILLA, LLP 710 LAKEWAY DRIVE SUITE 170 SUNNYVALE, CA 94085			ALI, SYED J	
			ART UNIT	PAPER NUMBER
			2127	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,771

Applicant(s)

SCHMIDT, BRIAN KEITH

Examiner

Syed J Ali

Art Unit

2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 25-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 25-45, 47 and 48 is/are rejected.
- 7) ☒ Claim(s) 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-12, 25-38, 41-45, and 47-48 are rejected under 35 U.S.C. 102(b) as being anticipated by “Technical White Paper” (VMware, Inc.) (hereinafter VMware).**

3. As per claim 1, VMware teaches the invention as claimed, including a method for managing an active computing environment comprising:

encapsulating a plurality of active processes into a compute capsule (pgs. 2, 5); and

encapsulating system environment information relating to said processes into said compute capsule (pgs. 2, 5), said system environment information including host-specific data (pgs. 2, 5).

4. As per claim 2, VMware teaches the invention as claimed, including the method of claim 1 wherein said system environment comprises an associated state of said active processes (pgs. 2, 5) and said compute capsule includes state information indicating what each of said processes is doing at any given time (pgs. 2, 5).

Art Unit: 2127

5. As per claim 3, VMware teaches the invention as claimed, including the method of claim 2, further comprising:

removing a process from said active compute capsule when said process becomes inactive (pgs. 5-6).

6. As per claim 4, VMware teaches the invention as claimed, including the method of claim 1 further comprising:

automatically adding a new process to said compute capsule when said new process is a child of an already encapsulated process (pgs. 5-6).

7. As per claim 5, VMware teaches the invention as claimed, including the method of claim 1 further comprising halting said compute capsule (pg. 5).

8. As per claim 6, VMware teaches the invention as claimed, including the method of claim 5 further comprising storing said halted compute capsule off-line in a non-volatile storage medium (pg. 6).

9. As per claim 7, VMware teaches the invention as claimed, including the method of claim 6 wherein said non-volatile storage medium is a disk (pg. 6).

10. As per claim 8, VMware teaches the invention as claimed, including the method of claim 2 wherein said state further comprises a CPU state (pgs. 2, 5).

11. As per claim 9, VMware teaches the invention as claimed, including the method of claim 2 wherein said state further comprises a file system state (pgs. 2, 5).

12. As per claim 10, VMware teaches the invention as claimed, including the method of claim 2 wherein said state further comprises a device state (pgs. 2, 5).

13. As per claim 11, VMware teaches the invention as claimed, including the method of claim 2 wherein said state further comprises a virtual memory state (pgs. 2, 5).

14. As per claim 12, VMware teaches the invention as claimed, including the method of claim 2 wherein said state further comprises an inter-process communication state (pgs. 2, 5).

15. As per claims 25-27 and 29-36, VMware teaches the invention as claimed, including a computer program product comprising a computer usable medium having computer readable program code embodied therein, said computer program product comprising computer readable code configured to cause a computer to perform the method of claims 1-3 and 5-12, respectively (pg. 1).

16. As per claim 28, VMware teaches the invention as claimed, including the computer program product of claim 27, further comprising:

computer readable code configured to cause a computer to add a process to said active computing environment when said process becomes active (pgs. 5-6).

17. As per claim 37, VMware teaches the invention as claimed, including the computer program product of claim 25 wherein said computer program product is a computer operating system (pgs. 1-2).

18. As per claim 38, VMware teaches the invention as claimed, including the computer program product of claim 27 wherein said computer program product includes a system call for creating a new compute capsule (pgs. 2, 5).

19. As per claim 41, VMware teaches the invention as claimed, including the computer program product of claim 37 further comprising a system call that suspends said compute capsule and records a state of said compute capsule (pg. 5).

20. As per claim 42, VMware teaches the invention as claimed, including the computer program product of claim 41 further comprising a system call that restarts said compute capsule from said state (pgs. 2, 5).

21. As per claim 43, VMware teaches the invention as claimed, including the computer program product of claim 41 wherein said state of said compute capsule includes host-specific data that is not globally accessible (pgs. 4-5).

22. As per claim 44, VMware teaches the invention as claimed, including the method of claim 1 wherein all of a user's processes are added to said compute capsule (pgs. 2, 5).

23. As per claim 45, VMware teaches the invention as claimed, including the method of claim 44 further comprising adding all of said user's open devices, configuration settings, environment information, working directories and files, assigned resources, installed software and internal program state to said compute capsule (pgs. 2, 5).

24. As per claim 47, VMware teaches the invention as claimed, including the method of claim 1 wherein upon any change in processes added to said compute capsule, process information in said compute capsule is modified to reflect said change (pgs. 5-6).

25. As per claim 48, VMware teaches the invention as claimed, including the method of claim 1 wherein upon any change in said system environment, system environment information in said compute capsule is modified to reflect said change (pgs. 5-6).

Claim Rejections - 35 USC § 103

26. **Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over VMware.**

Art Unit: 2127

27. As per claims 39-40, VMware does not specifically teach the invention as claimed, including the computer program product of claim 38 wherein said system call for creating a new compute capsule is implemented into a login shell of said computer operating system such that a login session is encapsulated or allowing a user to selectively add processes into said compute capsule so that said compute capsule has arbitrary contents. Such modifications would have been well within the spirit of the invention, as login shells are well known and expected in the art. The method of VMware is designed for implementation on a virtualized computer system, so any machine that supports a login shell and a virtual machine could conceivably implement the method. Furthermore, allowing a user to selectively add processes is well known in the art, as evidenced by Lim et al. (USPN 6,795,966) which allows an encapsulated computing environment to be updated at a user specified point.

Allowable Subject Matter

28. **Claim 46 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

Response to Arguments

29. Applicant's arguments with respect to claims 1-12 and 25-48 have been considered but are moot in view of the new grounds of rejection.


Conclusion

30. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Art Unit: 2127

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Syed Ali
November 12, 2004